

**B.V. SKVORTZOV*: New and little known species of
the genus *Urceolus* Meresch. (Peranemaceae, Euglenophyta)
from N.-E. China and Brasil**

ビー・ブイ・スクボルツォフ：華北およびブラジル産 *Urceolus* 属
(ミドリムシ植物) の未知種

In this brief paper, altogether 25 different forms of the genus *Urceolus* (Peranemaceae, Euglenophyta), 8 from N.-E. China and 19 from Brasil, South America are described. The key to species, and the description of the genus are given in English, and the diagnosis of new forms in Latin only.

In the course of my microscopical work during the past ten years a number of species of the genus *Urceolus* Meresch. have been studied almost in the environs of Harbin, N.-E. China, Asia and recently during the last years (1962-1964) in Sao Paulo, Brasil, South America.

Prior to preparing this report many days have been spent for collecting, cultivations, observing and the descriptions. It was found that the best method to collect *Urceolus* specimens was to prepare extracts from different water plants and algae. The extracts were placed in glass cylinders for several days only and the flagellata were examined on glass slides which had been immersed in the bottom of cylinders for several hours to one day.

Description of the genus *Urceolus* Meresch.

This genus of flagellata was established by Prof. Mereschkowski in 1877. The type of this genus *Urceolus cyclostomus* (Stein) Meresch. has flask-shaped cells with a narrow or a widely flaring mouth above the constricted neck. The cells are colourless and star or slightly metabolic. The periplast has coarse or delicate striae that extend spirally backward from the anterior end. There is a single long flagellum inserted laterally to a reservoir. Reservoir is with a contractile vacuoles. The pharyngeal rod apparatus is long. Nucleus is posterior. In other species periplast is hyaline or covered with sand-grains or with frustules of diatoms. Some species are with indistinct pharyngeal rods apparatus and in some cyaella cells were observed. Paramylon granules are numerous almost round in shape. Oil drops and food vacuoles also present. Nutrition almost holozoic (Bacteria).

* Instituto de Botanica, Sao Paulo, Brasil.

2. Key to species.

1. Pharyngeal rods apparatus present2.
1. Pharyngeal rods apparatus indistinct or absent9.
 2. Pharyngeal rods apparatus long3.
 2. Pharyngeal rods apparatus short8.
3. Periplast striate.....4.
3. Periplast hyaline5.
 4. Striation of periplast from right to left1. *U. salviniae*
 4. Striation of periplast from left to right7.
5. Cell fusiform, posterior part oblique acute1. *U. salviniae* var. *hyalinus*
5. Cells spheric, ovoid or pyriform.....6.
 6. Cell more or less round, flaring mouth straight2. *U. rotundatus*
 6. Cell pyriform, anterior part gradually pass to a obtuse and abrupt flaring mouth3. *U. gobii*
7. Flaring mouth very broad and short with undulated margins...4. *U. cyclostomus*
7. Flaring mouth longer, curved to one side, straight abrupt...5. *U. saopaulensis*
8. Cell fusiform with elongate curved and broad flaring mouth; periplast hyaline.....1. *U. salviniae* var. *hyalinus*
8. Cell obovate with very short indistinct flaring mouth; periplast granulate6. *U. skujae*
9. Cyanella cells present10.
9. Cyanella cells not present12.
 10. Periplast spirally striate, striation from right to left.....7. *U. noemyi*
 10. Periplast hyaline and not spirally striate.....11.
11. Flaring mouth very broad, flat and short, almost to broad as the middle part of the cell.....8. *U. tatianae*
11. Flaring mouth not broad, about 3 times shorter than the middle part of the cell9. *U. cyanellae*
12. Cells covered with sand grains or with diatom valves.....13.
12. Cells striate or hyaline17.
13. Cell covered with sand grains and diatom valves.....10. *U. bacillariae*
13. Cells with scabrid periplast or covered with sand grains of distinct form...14.
14. Periplast scabrid.....11. *U. pascherii*
14. Periplast covered with sand grains15.
15. Flaring mouth very broad, short and oblong12. *U. penardii*

15. Flaring mouth broad, oblique or straight16.
16. Cells almost spherical more or less depressed.....13. *U. vitalii*
16. Cells more or less ovoid13. *U. vitalii* var. *mitriformis*
17. Periplast striate.....18.
17. Periplast more or less hyaline.....22.
18. Striation of the cell from right to left.....14. *U. dexter-striatus*
18. Striation of the cell from left to right19.
19. Flaring mouth straight, elongate, more or less of a form of a collar or short20.
19. Flaring mouth more or less oblique.....21.
20. Cells fusiform, flaring mouth elongate or short, sometimes elongate in the margins15. *U. asiaticus*
20. Cells oblong with slightly undulate margins, more or less rounded in posterior part, with a short and broad flaring mouth16. *U. curtus*
21. Cells ovoid with more or less short posterior part and short flaring mouth 17. *U. milanexii*
21. Cells more or less fusiform with short acute posterior end, more or less attenuate anterior part with a short or long flaring mouth.....18. *U. mayacae*
22. Cells strongly asymmetrical23.
22. Cells slightly asymmetrical or more or less symmetrical24.
23. Cell from lateral side view strongly asymmetrical, ventricose with attenuate ends curved to one side19. *U. zimmermanni*
23. Cell from lateral side view strongly asymmetrical, anterior part broader than the posterior; flaring mouth broad of a form of a collar20. *U. asymmetricus*
24. Cell short or more or less long fusiform25.
24. Cell more or less ovoid or ellipsoid26.
25. Orificium oris broad and short, the end of the cell short acute and obtuse on its point21. *U. piscateris*
25. Orificium oris longer, the end more acute and also obtuse.....22. *U. alenizini*
26. Cell short ovoid.....23. *U. wilmae*
26. Cell longer.....27.
27. Cell very small, about 7-8 μ 24. *U. minutus*
27. Cell larger, about 26 \times 15 μ anterior part somewhat elongate.....
.....25. *U. brasiliensis*

1. **Urceolus salviniae** nov. sp. (Figs. 1-3) Cellula natans asymmetrica

antice cum orificium oris ad flagellum tubiformis et incrassatis; membrana ecolerata et spiralter striata, striis dextrum-sinistrorsis; organum baculiforme longum vel brevius; vacuola distincta; nucleus in parte posteriore cellulae; granulae paramylaceae non vidi; vacuolae ad nutrimentum minor et postice; movet repente; cellula $37-40 \times 11-18 \mu$.

var. **hyalinus** var. nov. (Figs. 10, 11). Membrana hyalina. Cellula $22.5 \times 11 \mu$.

Hab. In stagnis prope Sao Paulo, Rio Bonito, leg. V. Alin et B. Skvortzov 5/5, '63; Sao Paulo, Parque do Estado in lago, leg. B. Skvortzov, 2/7, '63; var. *hyalinus* in Parque do Estado in *Mayaca* stagnum, leg. B. Skvortzov, 17/63.

2. **Urceolus rotundatus** nov. sp. (Fig. 4). Cellula spherica vel subspherica, $24-26 \mu$ longa, parte anteriora urceolata; collum breve; oris rectum et latum; membrana tenuis, hyalina et non striata; organum baculiforme adest; flagellum cellulae subequilongum; vacuolae ad nutrimentum numerosae.

Hab. Prope Harbin, China in aqua stagnalibus, leg. B. Skvortzov in 1934.

3. **Urceolus gobii** Skv. in Farblöse Euglenaceen aus Nord-Mandschurei (China), aus Archiv für Protist. **48**: 184 Textfig. B, 5. 1924 (Fig. 5).

Cell oblong ovoid with attenuate anterior and rounded ends, $18.5 \times 12.9 \mu$; pharyngeal rods apparatus long and distinct; food vacuoles numerous in posterior part of the cell; flagellum about 1.5 of the cell length.

Hab. Prope Harbin, China in aqua stagnalibus, leg. B. Skvortzov in 1922.

4. **Urceolus cyclostemus** (Stein) Meresch. in Pascher and Lemmermann, E. Eugleninae. 163, Fig. 339 1913; Skvortzov, B. (1924) in Farblöse Euglenaceen aus Nord-Mandschrei (China) in Archiv f. Protist. **48**: 184 (Fig. 6).

Cell flask-shaped with a narrow or widely flaring mouth above the constricted neck; periplast has coarse or delicate striae that extend spirally backward from the anterior end; flagellum of about one cell length, inserted near the reservoir; pharyngeal rods apparatus is long and distinct; nucleus posterior.

Hab. Prope Harbin, China in stagnis. Distr. Europa, America borealis.

5. **Urceolus saopaulensis** nov. sp. (Figs. 7-9). Cellula natans asymmetrica urniformis, fronte fusiformis, parte anteriore cum orificium ad flagellum ovalis, parte posteriore acuta, latere constrictis, dorse arcuatis, ventre plus minus inflatis; flagellum unicum, $2/3-1$ cellulae longum; membrana paulo metabolica, spiralter striata, striis sinister-dextrorsis; organum baculiforme longum, fere $1/2$ cellulae longum; vacuola conspicua; nucleus sphericus, in medio vel postico; granulae

paramylaceae minor bacilliformes; vacuolae ad nutrimentum non vidi; cellula $37 \times 11 \mu$. A *Urceolus salviniae* nov. sp. (Figs. 1-3) striis sinister-dextrorsis non dextrum-sinistrorsis differt.

Hab. In stagnis prope Sao Paulo, Rio Bonito, leg. V. Alin et Skvortzov, 5/3, '63.

6. *Urceolus skujae* nov. sp. (Figs. 12-16). Cellula in motione ovoidea, subelliptica, antice depressa et oblonga, postice plus minus acuta et asymmetrica; membrana rigidula plus minus metabolica et irregulariter granulata; flagellum 1-2-2.2 plo cellulae longium; organum baculiforme tubiformis prope vacuolae; nucleus in medio cellulae; granulae paramylaceae et vacuolae ad nutrimentum non vidi; cellula $22 \times 11 \mu$.

Hab. In stagnis prope Sao Paulo, Rio Bonito, leg. V. Alin et B. Skvortzov, 8/5, '63.

7. *Urceolus noemyi* nov. sp. (Fig. 17). Cellula natans late ovalis cum collum latum, rectum et striatum; membrana rigida, distincte et spiraliter striatae dextrum-sinistrorsae; vacuola distincta; cyanella coeruleo-viridis orbicularis et numerosis; vacuolae ad nutrimentum et organum baculiforme non vidi; cellula $26 \times 18.5 \mu$.

Hab. Sao Paulo, in Bot. Carden Universitadi, leg. N.T. Yamaguishi, 26/4, '63.

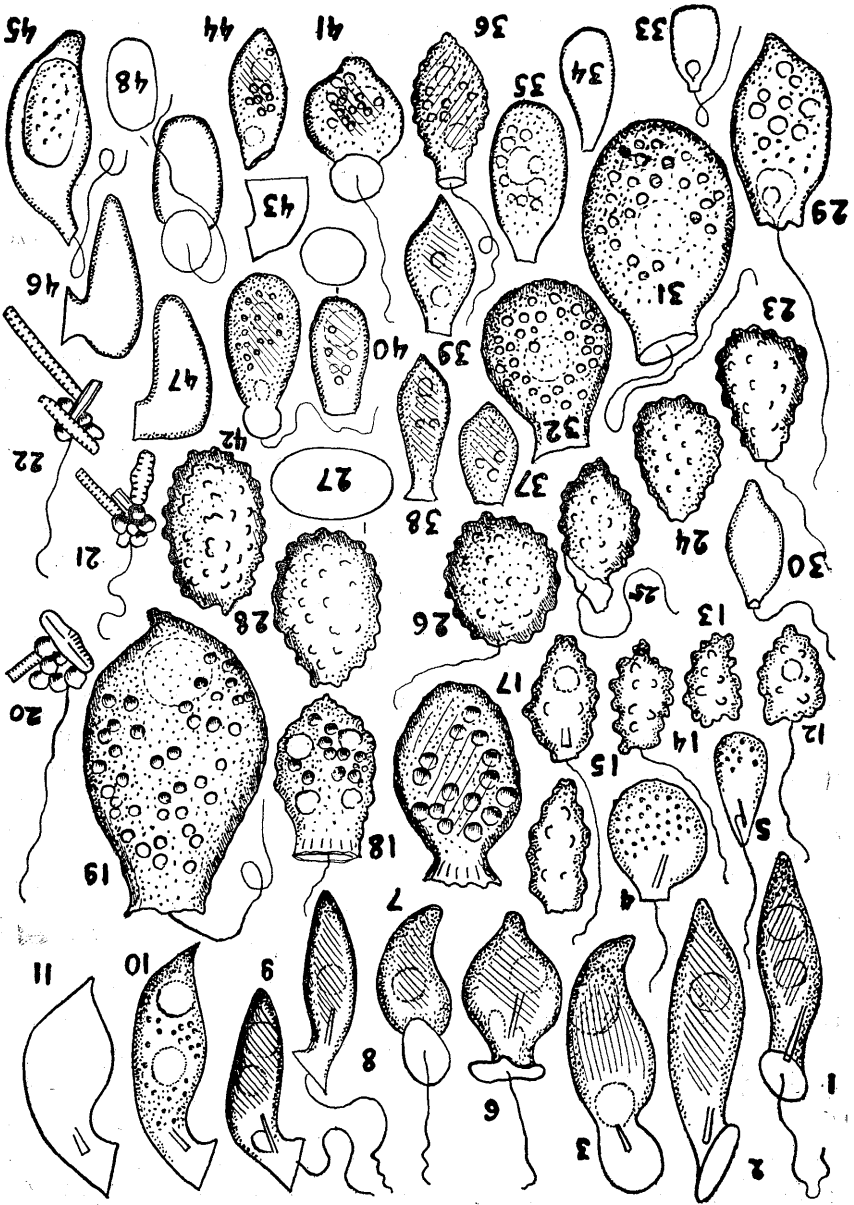
8. *Urceolus tatianae* nov. sp. (Fig. 18). Cellula natans late evalis, antice abrupta collariformis; collum cum striis longitudinalis; cellula postice brevi acuta; membrana plus minus rigida et non striata, bene metabolica; flagellum singulum 3-4 pro cellulae brevioris; vacuolae et organum baculiforme non vidi; cyanellae cellulae coerulei-virides orbiculares numerosae (8-10); nucleus orbicularis posteriore; vacuolae ad nutrimentum aliquet; cellula $33 \times 15 \mu$.

Hab. Campinas, Brasil, Institute Agronomice, in lacum. leg. T.S. Sendulski, 2/5, '63.

9. *Urceolus cyanellae* nov. sp. (Fig. 19). Cellula natans urniformis vel ovoidea asymmetrica, in parte anteriore cum collum fere recta, ad marginibus bene constricta, in parte posteriore cellulae unilaterale subacuta; membrana hyalina et non striata et bene metabolica; flagellum cellulae longium; vacuola contractilis non vidi; nucleus orbicularis, magnus et posteriore; cyanella cellulae coeruleo-viridis, spherica et numerosa; vacuolae ad nutrimentum et organum baculiforme adsunt; cellula $37 \times 26 \mu$.

Hab. Sao Paulo, Parque de Estado, in lago, leg. B. Skvortzov, 20/8, '63.

10. *Urceolus bacillariae* nov. sp. (Figs. 20-22). Cellula natans minor



spherica vel oblonga, parte anteriora plus minus obtusa, posteriora rotundata, $11 \times 8 \mu$; membrana non perspicua tota cum granulae arenae et frustilae Bacillario-phyta (*Navicula*, *Nitschia*, *Bacillaria paradoxa*) affixa; flagellum singulum, 2-3 fere 4 pro cellulae longium; vacuolae, nucleus, organum baculiforme et vacuolae ad nutrimentum non vidi.

Hab. Brasil, Sao Paulo state, Ubatuba in stagnis subsalsis, leg. Danlei M. Vital, 8-9/7, '63.

11. **Urceolus pascheri** Skvortzov in Farblose Euglenaceen aus Nord-Mandschrei (China) in Archiv f. Protist. **48**: 184, Textfig. B, 6 (1924), (Figs. 23-24).

Cell broad or short ovoid with attenuate and abrupt anterior part and broad rounded posterior; membrane irregularly granulate and mucose; flagellum of one cell length; cell $11.1-18.5 \times 5-14.8 \mu$.

Hab. Prope Harbin, China in aqua stagnalis, leg. B. Skvortzov, in 1922.

12. **Urceolus penardii** nom. nov. (Fig. 25). *Urceolus cyclostemus* Penard non Stein et Mereschrovski in Pascher and Lemmermann, E. Eugleninae, 163, Fig. 328 non 339, 1913.

Cellula urceolata; organum baculiforme nullum; membrana irregulariter granulata et gelatinosa; orificium oris latum et obliquum; dimensione et habitat nullum.

Hab. Europe?

13. **Urceolus vitalii** nov. sp. (Fig. 26). Cellula natans robusta suborbicularis, in apicibus plus minus rotundata; membrana rigida et non metabolica, irregulariter granulata, granulis arenosis; flagellum singulum fere sesquialongium; vacuolae distinctis; granulae paramylaceae et organum baculiforme non vidi; nucleus magnus et centralis; vacuolae ad nutrimentum prope nuclei; cellula $30 \times 20 \mu$.

var. **mitriformis** nov. var. (Figs. 27-28).

Minor et longior cum colle conspicuum et minor, parte anterior plus minus recta vel oblonga, $8-15 \times 11 \mu$.

Hab. Brasil, Sao Paulo state, Ubatuba, in stagnis subsalsis, leg. Daniel M.

Figs. 1-45: 1-3 *Urceolus salviniae* nov. sp.; 4 *U. rotundatus* nov. sp.; 5 *U. gobii* Skv.; 6 *U. cyclostemus* Mer.; 7-9 *U. saopaulensis* nov. sp.; 10-11 *U. salviniae* nov. sp. var. *hyalinus* nov. var.; 12-16 *U. skujae* nov. sp.; 17 *U. noemyi* nov. sp.; 18 *U. tatinae* nov. sp.; 19 *U. cyanellae* nov. sp.; 20-22 *U. bacillariae* nov. sp.; 23-24 *U. pascheri* Skv. 25 *U. penardii* nom. nov.; 26 *U. vitalii* nov. sp.; 27-28 *U. vitalii* var. *mitriformis* var. nov.; 29 *U. piscanteris* nov. sp.; 30 *U. alenizini* Mer.; 31-32 *U. wilmae* nov. sp.; 33 *U. minutus* nov. sp.; 34-35 *U. brasiliensis* nov. sp.; 36 *U. dexter-striatus* nov. sp.; 37-39 *U. asiaticus* nov. sp.; 40 *U. curtus* nov. sp.; 41-43 *U. milanezii* nov. sp.; 44 *U. mayacae* nov. sp.; 45 *U. zimmermannii* nov. sp.; 46-48 *U. asymmetricus* nov. sp.

Vital; varietatis in aqua inquiris prope rivulis Pinheires, leg. B. Skvortzov, 3/3, '63.

14. **Urceolus dexter-striatus** nov. sp. (Fig. 36). Cellula natans asymmetrica, urniformis vel fusiformis, parte anteriore tubiformis et abrupta, posterior parte acuta et marginibus incrassatis; membrana distinctae striata, striis dextrum-sinistrorsis, paulo metabolica; nucleus indistinctus; organum baculiforme et granulae ad nutrimentum adsunt; flagellum $2/3-1.5$ cellulae longum; vacuolae contractiles 2; granulae paramylacea numerosae et sphaericae; cellula $30 \times 15 \mu$.

Hab. Sao Paulo, Parque de Estado in fossa inter plantas aquaticis. leg. B. Skvortzov, 25/4, '63.

15. **Urceolus asiaticus** nov. sp. (Figs. 37-39). Cellula a latere visa ovalis vel oblonga vel fusiformis, $30-40 \times 15 \mu$, antice attenuata et abrupta, postice cuneata vel brevi acuta; in sectione rotundata vel paulo depressa; orificium oris $7.4-8 \mu$ in diametro cum cello evoluto; membrana plus minus metabolica et spiraliter striata; flagellum ad $1/2$ vel $2/3$ longitudinis cellulae longum; vacuola contractilis 1-3; nucleus parte posteriore cellulae positum. Ab *Urceolus cyclostomus* (Stein) Meresch, (Tab. nostra fig. 6) organe baculiformi nullo et nutrimentum saprezeicum.

Hab. Prope Harbin, China in a qua stagnalis inter Mougeotia sp., leg. B. Skvortzov. in 1931.

16. **Urceolus curtus** nov. sp. (Fig. 40). Cellula a latere visa elongata vel elongate ovoidea, parte anteriore plus minus attenuata et abrupta; marginibus undulatis vel verrucosis, parte posteriore late rotundata et undulata in sectione non depressa; membrana tantum in parte posteriore plus minus metabolica et non striata; vacuolae contractiles 2; nucleus magnus in parte posteriore cellula positus; cellula $44 \times 26 \mu$.

Hab. Prope Harbin, China in stagnis, leg. B. Skvortzov, in 1931.

17. **Urceolus milanezi** nov. sp. (Figs. 41-43). Cellula natans asymmetrica urniformis vel ovalis fronte ovalis cum orificium oris incrassatis, truncatis et striatis, latere dorse plus minus arcuatis, ventre incrassatis; membrana modice metabolica et distincte spiraliter striata, striis sinister-dextrorsis; flagellum unicum, $1.2-1.5$ cellulae longum; organum baculiforme et vacuolae ad nutrimentum non vidi; vacuola sacculiformis; nucleus centralis vel parte posterior; granulae paramylaceae orbiculares et numerosae; cellula $30-33.3 \times 15-18.5 \mu$.

Hab. Sao Paulo, Parque do Estado in lago inter plantas aquaticis. leg. A.I. Milanez, 26/4, '63.

18. **Urceolus mayacae** nov. sp. (Fig. 44). Cellula in statu natans symmetrica, parte anteriore attenuatis, apice plus minus constrictis cum orificium ad flagellum brevis vel incrassatus cellariformis, parte posteriore brevi acutis; membrana medice metabolica et spiraliter striata, striis sinister-dextrorsis; flagellum unicum sesquolongium; organum baculiforme adest; vacuola magna; nucleus sphericus et posterior; granulae paramylaceae numerosae et distinctae, sphaericae; vacuolae ad nutrimentum adsunt; cellula $29-37 \times 15-18 \mu$.

Hab. Sao Paulo, Brasil: 1. Parque de Estado in stagnis cum *Mayaca sellowiana* Steud, leg. B. Skvortzov, 2. Jardim Prudenti in fossa cum aqua impura, leg. V. Alin, 16/6, '63.

19. **Urceolus zimmermanni** nov. sp. (Fig. 45). Cellula natans asymmetrica, elongata vel fusiformis, in sectione non compressa; fronte asymmetrica, dorsalis arcuata, vetrale curvata, antice tubiformis cum orificium oris oblongum, postice unilateraliter acuta et obtusa; membrana glabra et non striata; nucleus magnus ellipticus in medio cellulae; granulae paramylonaceae minores, numerosae et ovoides; vacuolae, organum baculiforme et vacuolae ad nutrimentum non vidi; cellula $44 \times 18 \mu$.

Hab. Sao Paulo, Brasil, in Jardim Botanico Universidade, leg. L. Zimmermann, 13/8, '63.

20. **Urceolus asymmetricus** nov. sp. (Figs. 46-48). Cellula natans asymmetrica, fronte visa elongata cum orificium oris vel collum suborbicularis, latere visa multe asymmetrica, dorso arcuata, ventre fere recta; membrana laevis et non striata; paulo metabolica; flagellum unicum fere sesquolongium; vacuola orbicularis; nucleus in medio cellulae; organum baculiforme adest; granulae paramylaceae numerosae ovoides; vacuolae ad nutrimentum adest; cellula $24 \times 13 \mu$.

Hab. Sao Paulo, Brasil, Parque do Estado, in lacum cum *Salvinia auriculata* Aubl., leg. B. Skvortzov, 29/6, '63.

21. **Urceolus piscatoris** nov. sp. (Fig. 29). Cellula natans urniformis vel ovoides, parte anteriora abrupta plus minus dentata, posterior late acuta; membrana laevis, non striata et paulo metabolica; flagellum unicum fere 1.5-2 cellulae longium; vacuolae conspicuae; nucleus indistinctus; organum baculiforme adest; vacuolae ad nutrimentum aliquet; cellula $30 \times 15 \mu$.

Hab. Sao Paulo, Brasil, in lacum inter *Salvinia auriculata* Aubl., leg. B. Skvortzov, 29/6, '63.

22. **Urceolus alenizini** Meresch. in A. Pascher and Lemmermann, Eugle-

ninae, p. 103, Fig. 338 1913; B. Skvortzov, Farblose Euglenaceen aus Nord-Mandschurei (China) in Archiv f. Protisten., **48**: 184, 1924 (Fig. 30).

Cellula ovata vel late fusiformis utrinque attenuata, parte anteriore abrupta; membrana hyalina et non striata; orificium oris brevis et non latum; flagellum cellula longium; organum baculiforme non vidi; cellula $30-39 \times 17-24 \mu$.

Hab. Prope Harbin, China in stagnis leg. B. Skvortzov in 1922. Distr. Europae.

23. **Urceolus wilmae** nov. sp. (Figs. 31-32). Cellula natans asymmetrica urniformis suborbiculatis; orificium oris obliquum, parte posteriore plus minus rotundatum; membrana hyalina et non striata vel indistincte spiraliter striata, bene metabolica; nucleus centralis et orbicularis; vacuolae anteriore, vacuolae ad nutrimentum et organum baculiforme non vidi; granulae paramylaceae numerosae, sphaericae vel ovoideae; cellula $26-30 \times 22-25 \mu$.

Hab. Sao Paulo, Brasil, Belling lacum, leg. Prof. W. Branco, 29/8, '63.

24. **Urceolus minutus** nov. sp. (Fig. 33). Cellula ovalis, parte anteriore attenuata, parte posteriore late rotundata plus minus obtusa, $7-8 \mu$ longa, $3-4 \mu$ lata; membrana adest vel deest, si adest tenuis, mucosa, plus minus metabolica, minute scrobiculata vel dentata; orificium oris indistinctum non infundibuliforme; organum baculiforme deest; flagellum rectum, $1.5-2$ plo cellula longium; vacuolae ad nutrimentum minutae, numerosae; nutrimentum holozoicum (Bacteria); movet rapide rotante et porro.

Hab. Harbin, China in aqua impura, leg. B. Skvortzov in 1931.

25. **Urceolus brasiliensis** nov. sp. (Figs. 34-35). Cellula natans asymmetrica et oblonga, ovoidea vel subobovata; fronte visa oblonga symmetrica cum apicibus rotundatis; latere visa dorso arcuata et ventre plus minus constricta, anterior attenuatis; cellula sectione visa non compressa; orificium oris tubiformes, rectum cum flagellum singulum fere 0.5 cellulae longium; membrana hyalina et non striata, fere metabolica; organum baculiforme et vacuolae adsunt; granulae paramylaceae numerosae et sphaericae; vacuolae ad nutrimentum aliquet; cellula $26 \times 15 \mu$.

Hab. Sao Paulo, Brasil, Ibirapuera, in lacum. leg. B. Skvortzov, 27/7, '63.

Literature

- Dugardin, F. 1841. Histoire naturelle de Zoophytes-Infusoires. Paris. Lemermann, E. 1913. Eugleninae in Die Süßwasser-Flora Deutschlands, Österreichs

und der Schweiz, Heft 2, Jena. Huber-Pestalozzi, G. 1955. Das Phytoplankton des Susswassers, 4 Teil. Euglenophyceen. Stuttgart. Popova, T. 1955 Euglenophyta in the Key of freshwater Algae of USSR, vol. 7, Mosckva. Skvortzov, B.V. 1924. Farblose Euglenaceen aus Nord-Mandschrei (China) in Archiv für Protist. 48: 180-186. ——— 1957. New and rare Flagellatae from Manchuria, Eastern Asia. Philip. Journ. of Ac. Vol. 86: (No. 2), Manila.

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華北ハルピンおよび南米ブラジル、サンパウロで採集したミドリムシ植物 *Peranemaceae* の *Urceolus* 属について研究した。その結果ハルピンから 38 種、サンパウロから 19 種を見出し、そのうち 23 は新種であった。属の記載、種への検索表と各種の記載、図をつけてある。

○高等植物分布資料 (48) Materials for the distribution of vascular plants in Japan (48)

○モミラン *Gastrochilus toramanum* Schltr. 樹幹稀に岩上に着生する、常緑多年生の小さい植物である。葉は小形で 2 列につき、橢円形または卵状橢円形。花は黄緑色で背面が紫色を帯びる。稀品で今日までに知られている産地は、静岡県富士山、長野県南部、岐阜県東部、三重県、和歌山県、兵庫県北部、広島県北部、高知県などに過ぎず、産量は至って少ない。関東地方ではいまでも誰も採集していないようである。ところが八王子市の植物研究家畔上浦治郎氏が、同氏の知人が 1963 年 9 月 28 日東京都下奥多摩日原の鐘乳洞附近で採集してきた小形のランを私に示された。色々検討してみた結果モミランであろうと思い、その旨返答しておいた。先日前川文夫博士が来られたので、鑑定して戴いた結果モミランであることが確認された。日原は今までのところモミランの分布の北限地であり、また東限地であると思う。(林業試験場浅川分室 林 弥栄)

□桑原義晴：後志の植物 — その生態 —, 1966, 後志の植物刊行会, 700 円。俱知安高等学校での長年にわたる研究成果のうち、特に北海道後志地方に関係の深い論文をまとめて一冊の本とされたものである。のせられた論文の一部は「生態学会誌」、「植物研究雑誌」、「北陸の植物」等に既に発表されたもので、“できるだけ多くの読者に読んでいただくために、平易に書き改めた”という著者の気持がうかがう事が出来る。北海道南部の植物を扱った単行本は非常にすくないので、同地方のフローラを知るのに大変便利である。発行所は北海道俱知安町北 1 東 3。(豊国秀夫)